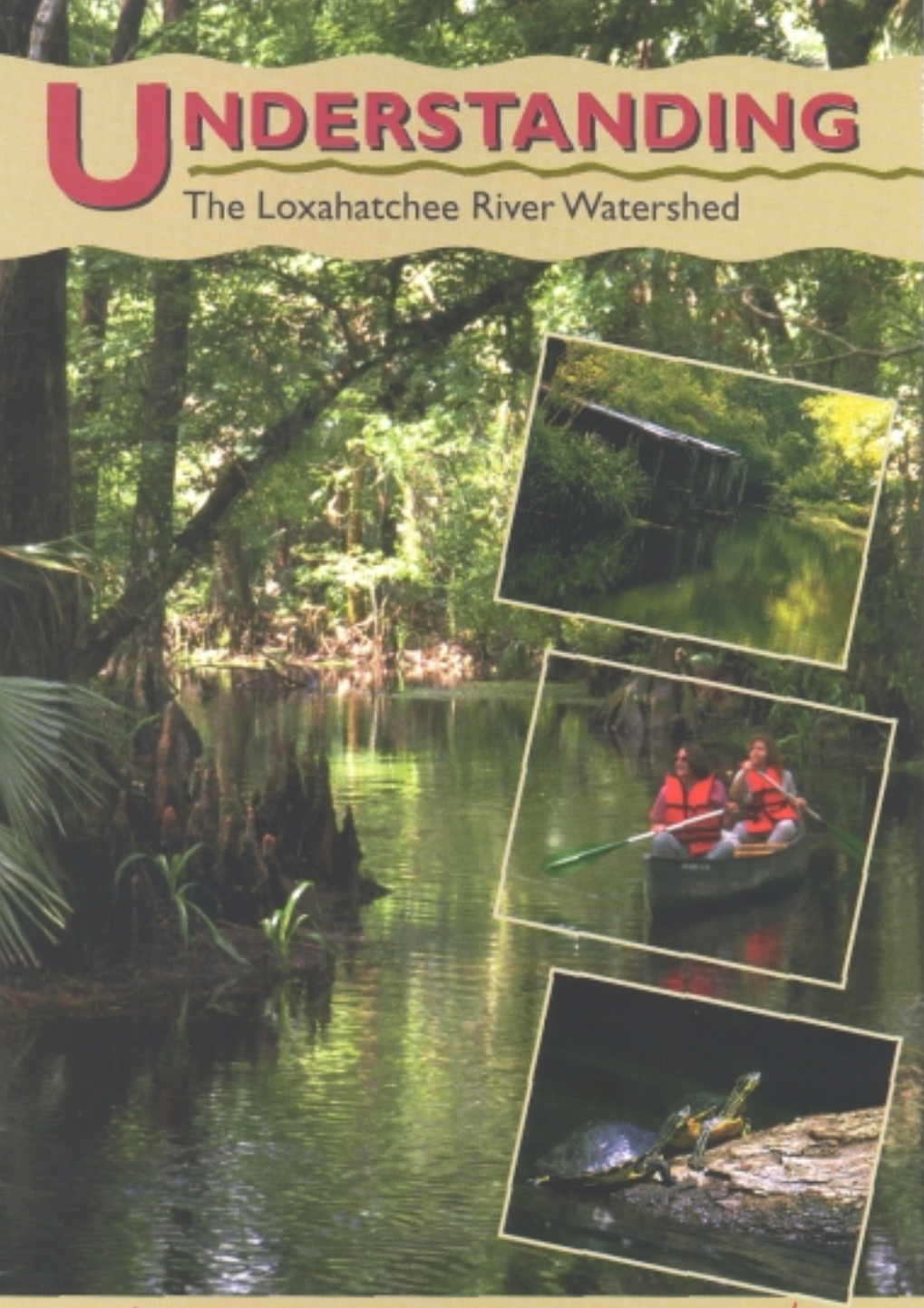
UNDERSTANDING

The Loxahatchee River Watershed



And what you can do to protect it!

What is a *watershed?*

A watershed is the entire area that water flows across, under and through on its way to a particular water body.

The Loxahatchee River watershed is located in northern Palm Beach County and southern Martin County and encompasses over 200 square miles that drain to the Jupiter Inlet. It includes the communities of Hobe Sound, Tequesta, Jupiter, Jupiter Island, Jupiter Inlet Colony, Jupiter Farms, Juno Beach, and Palm Beach Gardens. This watershed contains large tracts of undisturbed land, such as the Atlantic Coastal Ridge and Pal-Mar, as well as protected parcels such as J. W. Corbett Wildlife Management Area, Jonathan Dickinson State Park, Loxahatchee Slough Preserve and Jupiter Ridge Natural Area. It also contains managed agriculture lands and areas impacted by urban and suburban development, including industrial sites.

A watershed in *peril*

The Loxahatchee River watershed is unique in South Florida for the amount of natural areas that still remain intact. The Northwest Fork of the river is Florida's only federally designated "Wild and Scenic" river. Habitat types found within the watershed include pinelands, sand pine scrub, xeric oak scrub, hardwood hammock, freshwater marsh, wet prairie, cypress swamp, ponds, sloughs, streams, mangrove swamps, seagrass beds, tidal flats, oyster beds, and coastal dunes. These areas support diverse biological communities, including many endangered and potentially endangered species such as the manatee and the four-petal pawpaw, which is found only in Martin and Palm Beach counties.

Unfortunately, urban development is threatening these diverse habitats. Over the last 50 years, flood control, major road construction and dredging have taken their toll on the Loxahatchee River Watershed. We are at a crossroads; if we don't make changes now, we may lose the precious resources we value. Some of the negative effects of this development include:

- **Severed greenway connections, habitat loss and displaced wildlife**
  broken linkages among forests, parks, cultural and historical sites, resulting in insufficient land to provide hydrologic connections and sustain wildlife

- **Altered hydroperiod**
  drainage canals and barriers in developed areas reduce water storage in some natural areas, cause flooding in others and degrade water quality in lakes and streams

- **Contamination of groundwater**
  all of the drinking water in the watershed comes from groundwater – overpumping causes saltwater intrusion, and leaking fuel storage tanks can pose a potential contamination threat

- **Stormwater runoff**
  rainwater carries contaminants from developed areas into water bodies degrading water quality

- **Spreading of invasive exotic plants**
  native species that provide habitat, shelter and food for native wildlife are being crowded out by invasive exotic plants

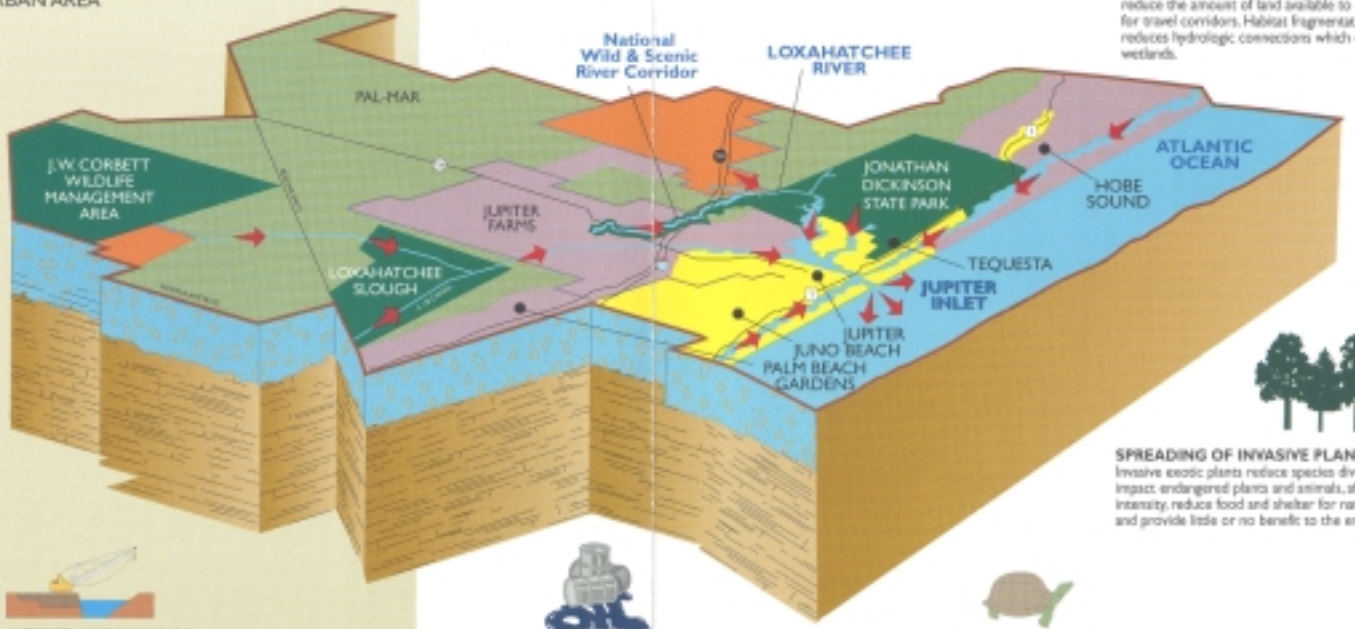
Loxahatchee River

WATERSHED

- NATURAL AREA
- PARK/PRESERVE
- URBAN AREA
- SUBURBAN AREA
- AGRICULTURE
- WATER BODY
- WATER FLOW

STORMWATER RUNOFF
When it rains, the water mixes with contaminants from developed areas and then flows into creeks, canals, lakes and eventually into the Loxahatchee River. These contaminants can reduce dissolved oxygen, which in turn can cause fish kills and other environmental damage.

HABITAT FRAGMENTATION
As development spreads, more natural areas are destroyed, leaving the remaining natural areas fragmented. These severed greenway connections reduce the amount of land available to larger animals for travel corridors. Habitat fragmentation also reduces hydrologic connections which can degrade wetlands.



ALTERED HYDROPERIOD
Canals provide drainage for agriculture and land development but also divert water from wetland systems.

CONTAMINATED GROUNDWATER
Potential contaminants include salt-water intrusion, dry-cleaning chemicals, pesticides and leaking fuel storage tanks.

DISPLACED WILDLIFE
As urban areas spread, wildlife is left without shelter and an adequate food supply.

SPREADING OF INVASIVE PLANTS
Invasive exotic plants reduce species diversity, impact endangered plants and animals, affect fire intensity, reduce food and shelter for native wildlife and provide little or no benefit to the environment.

WORKING TOWARD A SOLUTION

Department of Environmental Protection
- Exotic plant control on state-owned land
- Water quality monitoring
- Aquatic preserves management
- Restoration projects

Jupiter Inlet District
- Sim's Creek enhancement project
- Oxbow restoration in the Northwest Fork
- Seagrass bed monitoring

Loxahatchee River Environmental Control District
- Water quality monitoring
- Wastewater treatment and water reuse
- Public outreach and education
- Biological monitoring

Martin County
- Kitching Creek drainage study
- Acquisition of natural areas

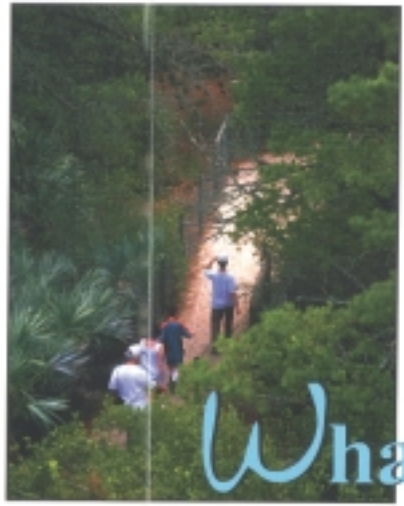
Municipal Governments
- Stormwater utility
- Drinking water supply

Palm Beach County
- Jupiter Ridge estuarine enhancement project
- Loxahatchee Slough restoration
- Natural areas acquisition and management

South Florida Water Management District
- Lower East Coast Water Supply Plan (LEC Plan)
- "Save Our Rivers" land acquisition
- Restoration project funding

Treasure Coast Regional Planning Council
- Loxahatchee River basin wetland planning project
- Land use planning and project reviews

FOR MORE INFORMATION
Call Cheryl McKee at (561) 681-6600



Ecosystem management can succeed only with the participation of all members of the community. Every resident, commercial enterprise, and recreational user of the Loxahatchee River watershed can help protect and preserve our natural resources. All of us can be good stewards of our watershed.

What can you do?

AT HOME

- ✔ Plant a Florida yard; use native species that attract birds and other wildlife
- ✔ Use less fertilizers and pesticides on the lawn and in the garden
- ✔ Keep pets away from wildlife
- ✔ Reduce waste generation by composting yard waste and by avoiding excess packaging in purchases
- ✔ Conserve water
- ✔ Where sewer service is not available, check and maintain your septic tank system
- ✔ Recycle paper, textiles, plastics and metal
- ✔ Contact your local solid waste authority for instructions on proper disposal of hazardous wastes, including used batteries and oil
- ✔ Car pool to work and leisure activities

IN THE COMMUNITY

- ✔ Immediately report any illegal or suspicious waste dumping
- ✔ Join a local environmental group
- ✔ Serve on a watershed management subcommittee
- ✔ Participate in local beach and river cleanups
- ✔ Plan a neighborhood composting or exotic pest plant control project
- ✔ Remove litter and obstructing debris from storm drains
- ✔ Adopt a road or a beach
- ✔ Support local programs to protect the Loxahatchee River
- ✔ Support programs for land acquisition and habitat preservation

The Loxahatchee River Watershed

fifty years of change

	1940s	1990s
Population	1,000	90,000
Economic base	agriculture timber commercial fishing	tourism boating service industry
Developed land	16 square miles	95 square miles
Wetlands	98 square miles	83 square miles
Water quality	active shellfish harvesting	shellfish harvesting prohibited due to contamination
Red-cockaded woodpecker	common	rare
Old World climbing fern	unreported in Florida	the most invasive pest plant in the watershed
Drinking water demand	139,000 gallons per day	15,210,000 gallons per day
River miles of cypress swamp	17	11

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